



SEQUENCE LISTING

<110> Carr, Antony M.

<120> Cell-Cycle Checkpoint Genes

<130> 27866/34132

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<160> 14

<170> PatentIn Ver. 3.1

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1710 1715 1720	
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Arg Ala Ile Gln Leu Glu Pro Asp Gln Ile Ile His Tyr His Gly Val	
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Val Lys Ser Met Leu Gly Leu Gly Gln Leu Ser Thr Val Ile Thr Gln	
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Val Asn Gly Val His Ala Asn Arg Ser Glu Trp Thr Asp Glu Leu Asn	
1760 1765 1770	
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Thr Tyr Arg Val Glu Ala Ala Trp Lys Leu Ser Gln Trp Asp Leu Val	
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Glu Asn Tyr Leu Ala Ala Asp Gly Lys Ser Thr Thr Trp Ser Val Arg	
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Leu Gly Gln Leu Leu Leu Ser Ala Lys Lys Arg Asp Ile Thr Ala Phe	
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Tyr Asp Ser Leu Lys Leu Val Arg Ala Glu Gln Ile Val Pro Leu Ser	
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Ala Ala Ser Phe Glu Arg Gly Ser Tyr Gln Arg Gly Tyr Glu Tyr Ile	
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Phe Gln His Ser Pro Gly Asp Ser Ser Gln Glu Asp Ser Leu Asn Trp	
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Val Ala Arg Leu Glu Met Thr Gln Asn Ser Tyr Arg Ala Lys Asp Pro	
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Ile Leu Ala Leu Arg Arg Ala Leu Leu Ser Leu Asn Lys Arg Pro Asp	
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Tyr Asn Glu Met Val Gly Glu Cys Trp Leu Gln Ser Ala Arg Val Ala	
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Gly Glu Ser Arg Leu Ala Glu Leu Tyr Val Glu Arg Ala Lys Trp Leu	
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Trp Ser Lys Gly Asp Val His Gln Ala Leu Ile Val Leu Gln Lys Gly	
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Lys Tyr Tyr Asp Lys Leu Met Pro Met Val Thr Asp Asn Lys Met Glu	
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Thr Ala Phe Ser Gln Leu Ile Ser Arg Ile Cys His Ser His Asp Glu	
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Val Phe Val Val Leu Met Glu Ile Ile Ala Lys Val Phe Leu Ala Tyr	
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Pro Met Arg Val Asn Arg Cys Lys Glu Ile Leu Asn Lys Ala Ile His	
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Asp Lys Leu Leu Glu Leu Cys Asn Lys Pro Val Asp Gly Ser Ser Ser	
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Thr Leu Ser Met Ser Thr His Phe Lys Met Leu Lys Lys Leu Val Glu	
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Glu Ala Thr Phe Ser Glu Ile Leu Ile Pro Leu Gln Ser Val Met Ile	
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Pro Thr Leu Pro Ser Ile Leu Gly Thr His Ala Asn His Ala Ser His	
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Glu Pro Phe Pro Gly His Trp Ala Tyr Ile Ala Gly Phe Asp Asp Met	
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Val Glu Ile Leu Ala Ser Leu Gln Lys Pro Lys Lys Ile Ser Leu Lys	
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Gly Ser Asp Gly Lys Phe Tyr Ile Met Met Cys Lys Pro Lys Asp Asp	
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 His Val Asp Phe Asn Cys Leu Phe Asn Lys Gly Glu Thr Phe Glu Val 2505
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 Pro Glu Ile Val Pro Phe Arg Leu Thr His Asn Met Val Asn Gly Met 2520
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 Gly Pro Met Gly Thr Glu Gly Leu Phe Arg Arg Ala Cys Glu Val Thr 2535
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 Met Arg Leu Met Arg Asp Gln Arg Glu Pro Leu Met Ser Val Leu Lys 2555
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 Ala Lys Thr His Val Leu Asp Ile Glu Gln Arg Leu Gln Gly Val Ile 2600
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 Lys Thr Arg Asn Arg Val Thr Gly Leu Pro Leu Ser Ile Glu Gly His 2615
 2605 2610
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 Met Tyr Leu Gly Trp Thr Pro Tyr Met 2640
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 35 40 45
 Asn Val Val Ala Val Glu Leu Val Lys Lys Thr Asp Ser Gln Pro Thr
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 Ser Val Met Leu Leu Asp Phe Ile Gln His Ile Met Lys Ser Ser Pro
 65 70 75 80
 Leu Met Phe Val Asn Val Ser Gly Ser His Glu Arg Lys Gly Ser Cys
 85 90 95
 Ile Glu Phe Ser Asn Trp Ile Ile Thr Arg Leu Leu Arg Ile Ala Ala
 100 105 110

Thr	Pro	Ser	Cys	His	Leu	Leu	His	Lys	Lys	Ile	Cys	Glu	Val	Ile	Cys
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Arg	Arg	Asn	Val	Met	Gly	His	Ala	Val	Glu	Trp	Pro	Val	Val	Met	Ser
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Arg	Phe	Leu	Ser	Gln	Leu	Asp	Glu	His	Met	Gly	Tyr	Leu	Gln	Ser	Ala
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Ser	Pro	Lys	Ile	Lys	Ser	Leu	Ala	Ile	Ser	Phe	Leu	Thr	Glu	Leu	Phe
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Gln	Leu	Gly	Gly	Leu	Pro	Ala	Gln	Pro	Ala	Ser	Thr	Phe	Phe	Ser	Ser
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Phe	Leu	Glu	Leu	Leu	Lys	His	Leu	Val	Glu	Met	Asp	Thr	Asp	Gln	Leu
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Leu	Leu	Glu	Lys	Leu	Cys	Val	Met	Phe	Glu	Asp	Gly	Val	Leu	Met	Arg
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Leu	Lys	Ser	Asp	Leu	Leu	Lys	Ala	Ala	Leu	Cys	His	Leu	Leu	Gln	Tyr
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Ser	Val	Val	Ile	Thr	Trp	Met	Ser	Leu	Asp	Phe	Tyr	Thr	Lys	Val	Leu
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Lys	Ser	Cys	Arg	Ser	Leu	Leu	Glu	Ser	Val	Gln	Lys	Leu	Asp	Leu	Glu
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Ala	Thr	Ile	Asp	Lys	Val	Val	Lys	Ile	Tyr	Asp	Ala	Leu	Ile	Tyr	Met
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Gln	Val	Asn	Ser	Ser	Phe	Glu	Asp	His	Ile	Leu	Glu	Asp	Leu	Cys	Gly
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Thr	Leu	Phe	Pro	Arg	Arg	Ile	Phe	Leu	Glu	Trp	Arg	Thr	Ala	Val	Tyr
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Asn	Trp	Ala	Leu	Gln	Ser	Ser	His	Glu	Val	Ile	Arg	Ala	Ser	Cys	Val
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Ser	Gly	Phe	Phe	Ile	Leu	Leu	Gln	Gln	Gln	Asn	Ser	Cys	Asn	Arg	Val
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Pro	Lys	Ile	Leu	Ile	Asp	Lys	Val	Lys	Asp	Asp	Ser	Asp	Ile	Val	Lys
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Glu Leu Phe Cys Ala Leu Leu Lys Asn Pro Asp Ile Ile Ser Ser Ser	
535 540 545	
gtt aaa caa tca ttg ttg ctt gat ggc ttt ttt cgg tgg agc cag cat	2276
Val Lys Gln Ser Leu Leu Leu Asp Gly Phe Phe Arg Trp Ser Gln His	
550 555 560	
tgc tca aac ttt aat aaa gaa tca atg tta agt tta aga gaa ttt att	2324
Cys Ser Asn Phe Asn Lys Glu Ser Met Leu Ser Leu Arg Glu Phe Ile	
565 570 575 580	
atg aaa gca tta gcc agt act tca aga tgt tta cgt gtt gtt gct gca	2372
Met Lys Ala Leu Ala Ser Thr Ser Arg Cys Leu Arg Val Val Ala Ala	
585 590 595	
aaa gtt ttg ccc att ttc att aag gga cct aat aat ctt gat ata gtt	2420
Lys Val Leu Pro Ile Phe Ile Lys Gly Pro Asn Asn Leu Asp Ile Val	
600 605 610	
gaa ttt cac aag gaa agt aaa gcc ttg att ttt aat acg ttg aaa ata	2468
Glu Phe His Lys Glu Ser Lys Ala Leu Ile Phe Asn Thr Leu Lys Ile	
615 620 625	
ttg gcg gtg gaa aat aca gct att tta gaa acg gtc att ctt tcc tgg	2516
Leu Ala Val Glu Asn Thr Ala Ile Leu Glu Thr Val Ile Leu Ser Trp	
630 635 640	
atc tcc tta tct aga gtg gta gaa gaa gaa gaa cat ttt gta cta	2564
Ile Ser Leu Ser Arg Val Val Glu Glu Glu Glu Leu His Phe Val Leu	
645 650 655 660	
ttg gaa gtt ata tct tct gtg ata aac agc gga ata ttt tat caa ggc	2612
Leu Glu Val Ile Ser Ser Val Ile Asn Ser Gly Ile Phe Tyr Gln Gly	
665 670 675	
att ggt ctc agc gct ctg caa caa att gcc tcg acg cgt cat ata tcc	2660
Ile Gly Leu Ser Ala Leu Gln Gln Ile Ala Ser Thr Arg His Ile Ser	
680 685 690	
gtt tgg caa tta ctt tct cca tat tgg cca aca gtg tcc gtt gcg att	2708
Val Trp Gln Leu Leu Ser Pro Tyr Trp Pro Thr Val Ser Val Ala Ile	
695 700 705	
gtc caa ggt atg ggt aaa aaa ccg aac ata gcc agt tta ttt gct cag	2756
Val Gln Gly Met Gly Lys Lys Pro Asn Ile Ala Ser Leu Phe Ala Gln	
710 715 720	
ctt atg aat att tcc gag ggc gat ttt ctt att cga aca cag gcg tac	2804
Leu Met Asn Ile Ser Glu Gly Asp Phe Leu Ile Arg Thr Gln Ala Tyr	
725 730 735 740	
act tta cca ttc ctt gta ctt act aaa aac aaa gcg tta ata gta cgt	2852
Thr Leu Pro Phe Leu Val Leu Thr Lys Asn Lys Ala Leu Ile Val Arg	
745 750 755	

ata gct gaa ctt tca caa agt gat gtt gct act ttg tgc ctt acc aat	2900
Ile Ala Glu Leu Ser Gln Ser Asp Val Ala Thr Leu Cys Leu Thr Asn	
760 765 770	
atg cat aaa atc ctt gct tcg cta ctt act acg gat cat cct aat ttg	2948
Met His Lys Ile Leu Ala Ser Leu Leu Thr Thr Asp His Pro Asn Leu	
775 780 785	
gaa gag agt gtg atg ctt ctt ctt tca ctg gcc act tct gat ttt gaa	2996
Glu Glu Ser Val Met Leu Leu Ser Leu Ala Thr Ser Asp Phe Glu	
790 795 800	
aaa gtt gat tta acg tct ttg tta cgc tct gat cct att tct att act	3044
Lys Val Asp Leu Thr Ser Leu Leu Arg Ser Asp Pro Ile Ser Ile Thr	
805 810 815 820	
gtg gag ttg tta cag ctt tat cag aat gat gtt cct cat gaa aaa att	3092
Val Glu Leu Leu Gln Leu Tyr Gln Asn Asp Val Pro His Glu Lys Ile	
825 830 835	
gaa aat gct tta aga aag gta gca atg att gtc tct caa gtg gtt aat	3140
Glu Asn Ala Leu Arg Lys Val Ala Met Ile Val Ser Gln Val Val Asn	
840 845 850	
gac gaa gac ttg agc aat aag gaa tta ctt tat gat ttt ttt aat aat	3188
Asp Glu Asp Leu Ser Asn Lys Glu Leu Leu Tyr Asp Phe Phe Asn Asn	
855 860 865	
cac att ttg ggt atc tta gca gaa ttt tct aat atc ctt aac gac ctg	3236
His Ile Leu Gly Ile Leu Ala Glu Phe Ser Asn Ile Leu Asn Asp Leu	
870 875 880	
aaa gga aag act tca att aat gaa aag att aag aca att gtc ggc att	3284
Lys Gly Lys Thr Ser Ile Asn Glu Lys Ile Lys Thr Ile Val Gly Ile	
885 890 895 900	
gaa aaa atg tta tct tta tgt gga ggt gca gtc aaa ctt gga tta cca	3332
Glu Lys Met Leu Ser Leu Cys Gly Gly Ala Val Lys Leu Gly Leu Pro	
905 910 915	
cag ata ctt tct aat tta caa agt gct ttt caa aat gag cac tta agg	3380
Gln Ile Leu Ser Asn Leu Gln Ser Ala Phe Gln Asn Glu His Leu Arg	
920 925 930	
ttt tat gca atc aaa gct tgg ttc agt ttg ata tta gca acc aag gag	3428
Phe Tyr Ala Ile Lys Ala Trp Phe Ser Leu Ile Leu Ala Thr Lys Glu	
935 940 945	
ccc gag tat agt tca att gct ggt tta agt ctt gta att tta cct cct	3476
Pro Glu Tyr Ser Ser Ile Ala Gly Leu Ser Leu Val Ile Leu Pro Pro	
950 955 960	
tta ttc cct tat tta gaa cca caa gaa gca gag cta gta att caa ata	3524
Leu Phe Pro Tyr Leu Glu Pro Gln Glu Ala Glu Leu Val Ile Gln Ile	
965 970 975 980	
ttt gat ttt att tct tct gac aca cac aag tgc cta caa gga tta aag	3572
Phe Asp Phe Ile Ser Ser Asp Thr His Lys Cys Leu Gln Gly Leu Lys	
985 990 995	
tgg gct atc ccc acc agt ctg gat tca gcg tgc ttt agc ctt aag	3617
Trp Ala Ile Pro Thr Ser Leu Asp Ser Ala Cys Phe Ser Leu Lys	
1000 1005 1010	
gct aaa gaa ata ttc tgt tcg ctt caa aat gaa gat ttt tac tct	3662
Ala Lys Glu Ile Phe Cys Ser Leu Gln Asn Glu Asp Phe Tyr Ser	
1015 1020 1025	
gag ctt caa agt ata att aag tgt tta act aac gaa aat gag cca	3707
Glu Leu Gln Ser Ile Ile Lys Cys Leu Thr Asn Glu Asn Glu Pro	
1030 1035 1040	
gtt tgt tat tta ggt tta caa aaa tta gaa ctt ttt ttt caa gcc	3752
Val Cys Tyr Leu Gly Leu Gln Lys Leu Glu Leu Phe Phe Gln Ala	
1045 1050 1055	
aag gtg gac gag tta cat gac aca cta aat ttg gac ata tcc aac	3797
Lys Val Asp Glu Leu His Asp Thr Leu Asn Leu Asp Ile Ser Asn	
1060 1065 1070	
gaa gtt ctg gac caa tta cta aga tgc ctt tta gat tgt tgt gta	3842
Glu Val Leu Asp Gln Leu Leu Arg Cys Leu Leu Asp Cys Cys Val	
1075 1080 1085	

aaa tat gct tca	aca aat atg caa	ata tca tat ctt	gct gca aaa	3887
Lys Tyr Ala	Thr Asn Met Gln	Ser Tyr Leu Ala	Lys	
1090	1095	1100		
aat ctt ggt gaa	ttg ggt gcg ata	gat ccc agc cgc	gcc aag gct	3932
Asn Leu Gly	Leu Gly Ala Ile	Asp Pro Ser Arg	Ala Lys Ala	
1105	1110	1115		
caa cat att att	aaa gaa aca gtt	gtt ctt gat aac	ttt gaa aac	3977
Gln His Ile	Lys Glu Thr Val	Leu Asp Asn Phe	Glu Asn	
1120	1125	1130		
gga gaa gaa agt	ttg aag ttt att	cta gat ttt atg	caa tcg cag	4022
Gly Glu Glu	Ser Leu Lys Phe	Ile Leu Asp Phe	Met Gln Ser	
1135	1140	1145		
tta att cca gct	ttc ctt gtt act	act gat act aaa	gca caa ggt	4067
Leu Ile Pro	Ala Phe Leu Val	Thr Thr Lys Ala	Gln Gly	
1150	1155	1160		
ttt ctt gcc tat	gct ctg caa gag	ttt cta aag ctt	ggt gga ttc	4112
Phe Leu Ala	Tyr Ala Leu Gln	Glu Phe Leu Lys	Leu Gly Gly	
1165	1170	1175		
aag tcc gca gtg	att aat aaa aaa	aag gga cta act	gtg gta aca	4157
Lys Ser Ala	Val Ile Asn Lys	Lys Gly Leu Thr	Val Val Thr	
1180	1185	1190		
gaa cat tgg atg	tct ttg cct gat	tta tcc aaa cgt	gtg ctt ata	4202
Glu His Trp	Met Ser Leu Pro	Asp Leu Ser Lys	Arg Val Leu	
1195	1200	1205		
cca ttt tta act	tcc aag tat cat	tta aca cca atc	ccc aaa att	4247
Pro Phe Leu	Thr Ser Lys Tyr	His Leu Thr Pro	Ile Pro Lys	
1210	1215	1220		
gac att cgg tac	cct att tat aaa	gaa aat gtt act	att cat act	4292
Asp Ile Arg	Tyr Pro Ile Tyr	Lys Glu Asn Val	Thr Ile His	
1225	1230	1235		
tgg atg cag ttg	ttt tct ctt aaa	ttg atg gag tac	gcc cat tcg	4337
Trp Met Gln	Leu Phe Ser Leu	Lys Leu Met Glu	Tyr Ala His	
1240	1245	1250		
caa aac gct gaa	aaa ata ttt ggt	att tgt tcg aaa	gta gtg aaa	4382
Gln Asn Ala	Glu Lys Ile Phe	Gly Ile Cys Ser	Lys Val Val	
1255	1260	1265		
gac caa gag gtt	aac att ccc tgt	ttt ctt ctt ctt	ttt gtt gtt	4427
Asp Gln Glu	Val Asn Ile Pro	Cys Phe Leu Leu	Pro Phe Leu	
1270	1275	1280		
tta aat gtt att	tta acc gag tca	gaa ctg gaa gtt	aat aaa gtc	4472
Leu Asn Val	Ile Leu Thr Glu	Ser Glu Leu Glu	Val Asn Lys	
1285	1290	1295		
att gaa gaa ttc	cag ctt gtt att	aat caa ccg gga	cct gat gga	4517
Ile Glu Glu	Phe Gln Leu Val	Ile Asn Gln Pro	Gly Pro Asp	
1300	1305	1310		
tta aat tcc gtg	ggg caa caa aga	tac acc tca ttt	gta gat gta	4562
Leu Asn Ser	Val Gly Gln Gln	Arg Tyr Thr Ser	Phe Val Asp	
1315	1320	1325		
ttt ttt aag att	gtg gat tac ctt	aac aaa tgg ctt	cgc atg cga	4607
Phe Phe Lys	Ile Val Asp Tyr	Leu Asn Lys Trp	Leu Arg Met	
1330	1335	1340		
aag aag agg aat	tgg gat aga cgt	tct gcc att gca	agg aaa gag	4652
Lys Lys Arg	Asn Trp Asp Arg	Arg Ser Ala Ile	Ala Arg Lys	
1345	1350	1355		
aac cgt tat atg	tcg gtg gaa gat	gct acc tct cga	gaa tca tcg	4697
Asn Arg Tyr	Met Ser Val Glu	Asp Ala Thr Ser	Arg Glu Ser	
1360	1365	1370		
atc tca aaa gtt	gag tca ttt ctt	tct cga ttt cct	tca aaa aca	4742
Ile Ser Lys	Val Glu Ser Phe	Leu Ser Arg Phe	Pro Ser Lys	
1375	1380	1385		
tta ggt att gtc	tct tta aat tgt	gga ttt cat gct	cgt gca ttg	4787
Leu Gly Ile	Val Ser Leu Asn	Cys Gly Phe His	Ala Arg Ala	
1390	1395	1400		

ttt tat tgg gag caa cac ata cgt aat gct aca gct cca tat gca	4832
Phe Tyr Trp Glu Gln His Ile Arg Asn Ala Thr Ala Pro Tyr Ala	
1405 1410 1415	
gct tta gag tcc gat tat aga gtt ttg cag gaa ata tat gct gga	4877
Ala Leu Glu Ser Asp Tyr Arg Val Leu Gln Glu Ile Tyr Ala Gly	
1420 1425 1430	
att gat gat cca gat gaa atc gaa gca gtg tct tta aat ttc cat	4922
Ile Asp Asp Pro Asp Glu Ile Glu Ala Val Ser Leu Asn Phe His	
1435 1440 1445	
gat tac tcg ttt gat caa caa ctc ctt tta cat gaa aat tca gga	4967
Asp Tyr Ser Phe Asp Gln Gln Leu Leu Leu His Glu Asn Ser Gly	
1450 1455 1460	
aca tgg gac tcg gct ttg agt tgt tac gaa att att att caa aag	5012
Thr Trp Asp Ser Ala Leu Ser Cys Tyr Glu Ile Ile Ile Gln Lys	
1465 1470 1475	
gat cct gaa aat aaa aag gcg aaa atc ggt ttg ctt aac agc atg	5057
Asp Pro Glu Asn Lys Lys Ala Lys Ile Gly Leu Leu Asn Ser Met	
1480 1485 1490	
ctg caa tcg ggg cat tat gaa tct ctt gtt ttg agt tta gat tct	5102
Leu Gln Ser Gly His Tyr Glu Ser Leu Val Leu Ser Leu Asp Ser	
1495 1500 1505	
ttt ata atc aat gac aac cac gag tat tcg aag atg tta aat ttg	5147
Phe Ile Ile Asn Asp Asn His Glu Tyr Ser Lys Met Leu Asn Leu	
1510 1515 1520	
ggt att gaa gct tca tgg cgt tcg cta tct att gat tcg tta aaa	5192
Gly Ile Glu Ala Ser Trp Arg Ser Leu Ser Ile Asp Ser Leu Lys	
1525 1530 1535	
aag tgt ctt tca aaa agc aac ttg gaa tct ttc gaa gct aaa ttg	5237
Lys Cys Leu Ser Lys Ser Asn Leu Glu Ser Phe Glu Ala Lys Leu	
1540 1545 1550	
ggt agc ata ttt tac caa tac cta cgg aag gat tct ttt gct gaa	5282
Gly Ser Ile Phe Tyr Gln Tyr Leu Arg Lys Asp Ser Phe Ala Glu	
1555 1560 1565	
ttg acg gag cgg ctg caa ccc ttg tac gtt gat gct gct aca gca	5327
Leu Thr Glu Arg Leu Gln Pro Leu Tyr Val Asp Ala Ala Thr Ala	
1570 1575 1580	
att gca aac aca ggc gcc cat tca gcc tat gat tgt tat gat att	5372
Ile Ala Asn Thr Gly Ala His Ser Ala Tyr Asp Cys Tyr Asp Ile	
1585 1590 1595	
tta tct aag ctg cac gca att aat gac ttt agt agg att gct gaa	5417
Leu Ser Lys Leu His Ala Ile Asn Asp Phe Ser Arg Ile Ala Glu	
1600 1605 1610	
act gac gga att gtt tcc gac aat ctt gat att gtt ctt cgc cgt	5462
Thr Asp Gly Ile Val Ser Asp Asn Leu Asp Ile Val Leu Arg Arg	
1615 1620 1625	
cgg ctt agc caa gta gct ccg tac ggt aaa ttc aag cac caa atc	5507
Arg Leu Ser Gln Val Ala Pro Tyr Gly Lys Phe Lys His Gln Ile	
1630 1635 1640	
ctg tcc act cac tta gtt ggc tat gaa aaa ttt gaa aac acg aag	5552
Leu Ser Thr His Leu Val Gly Tyr Glu Lys Phe Glu Asn Thr Lys	
1645 1650 1655	
aaa act gct gaa ata tat ctc gag att gca aga ata tct cga aaa	5597
Lys Thr Ala Glu Ile Tyr Leu Glu Ile Ala Arg Ile Ser Arg Lys	
1660 1665 1670	
aat ggt caa ttt caa aga gcc ttc aat gcc atc ctc aaa gca atg	5642
Asn Gly Gln Phe Gln Arg Ala Phe Asn Ala Ile Leu Lys Ala Met	
1675 1680 1685	
gat tta gat aaa ccg cta gca aca ata gag cac gca caa tgg tgg	5687
Asp Leu Asp Lys Pro Leu Ala Thr Ile Glu His Ala Gln Trp Trp	
1690 1695 1700	
tgg cat caa ggg caa cat cgt aaa gct att tct gaa ttg aat ttt	5732
Trp His Gln Gly Gln His Arg Lys Ala Ile Ser Glu Leu Asn Phe	
1705 1710 1715	

tcg ctt aat aac aac atg ttt gat ttg gtt gat gag cat gaa gaa	5777
Ser Leu Asn Asn Met Phe Asp Leu Val Asp Glu His Glu Glu	
1720 1725 1730	
aga cct aaa aat cgt aaa gaa act tta gga aat cca ctt aaa gga	5822
Arg Pro Lys Asn Arg Lys Glu Thr Leu Gly Asn Pro Leu Lys Gly	
1735 1740 1745	
aaa gtg ttc ttg aaa ctt aca aaa tgg ctc gga aaa gct ggc caa	5867
Lys Val Phe Leu Lys Leu Thr Lys Trp Leu Gly Lys Ala Gly Gln	
1750 1755 1760	
ctg gga ttg aag gat ttg gag acg tat tat cat aaa gcg gta gag	5912
Leu Gly Leu Lys Asp Leu Glu Thr Tyr Tyr His Lys Ala Val Glu	
1765 1770 1775	
att tac tca gaa tgt gag aat acg cat tat tat ctt ggc cat cat	5957
Ile Tyr Ser Glu Cys Glu Asn Thr His Tyr Tyr Leu Gly His His	
1780 1785 1790	
cga gtt tta atg tat gaa gaa gaa caa aag ctc cca gtt aat gaa	6002
Arg Val Leu Met Tyr Glu Glu Glu Gln Lys Leu Pro Val Asn Glu	
1795 1800 1805	
cag agc gaa cga ttt tta agt ggt gag tta gta act cgc ata att	6047
Gln Ser Glu Arg Phe Leu Ser Gly Glu Leu Val Thr Arg Ile Ile	
1810 1815 1820	
aac gaa ttt ggt cga tct ttg tac tat ggt aca aat cat ata tat	6092
Asn Glu Phe Gly Arg Ser Leu Tyr Tyr Gly Thr Asn His Ile Tyr	
1825 1830 1835	
gaa agt atg cca aaa ttg ctc aca ctg tgg ctt gat ttt ggg gcc	6137
Glu Ser Met Pro Lys Leu Leu Thr Leu Trp Leu Asp Phe Gly Ala	
1840 1845 1850	
gaa gaa ctt cgc tta tct aaa gat gac ggc gaa aag tac ttt cgt	6182
Glu Glu Leu Arg Leu Ser Lys Asp Asp Gly Glu Lys Tyr Phe Arg	
1855 1860 1865	
gaa cac att atc tct tcg aga aaa tct ttg gaa ctt atg aat	6227
Glu His Ile Ile Ser Ser Arg Lys Lys Ser Leu Glu Leu Met Asn	
1870 1875 1880	
tcg aat gtt tgt cgc ctt tct atg aaa att cct caa tac ttt ttt	6272
Ser Asn Val Cys Arg Leu Ser Met Lys Ile Pro Gln Tyr Phe Phe	
1885 1890 1895	
ctg gtt gca tta tcc caa atg ata tcc aga gta tgc cat cca aat	6317
Leu Val Ala Leu Ser Gln Met Ile Ser Arg Val Cys His Pro Asn	
1900 1905 1910	
aat aaa gtt tat aaa att ttg gaa cat ata att gca aac gtt gta	6362
Asn Lys Val Tyr Lys Ile Leu Glu His Ile Ile Ala Asn Val Val	
1915 1920 1925	
gca tct tat cct ggg gag acg cta tgg caa tta atg gca aca ata	6407
Ala Ser Tyr Pro Gly Glu Thr Leu Trp Gln Leu Met Ala Thr Ile	
1930 1935 1940	
aaa tcg act tct caa aag cgc tcg ctt cgt gga aaa agc att tta	6452
Lys Ser Thr Ser Gln Lys Arg Ser Leu Arg Gly Lys Ser Ile Leu	
1945 1950 1955	
aat gtt tta cat tct agg aag ctt tct atg tct tcc aaa gtt gat	6497
Asn Val Leu His Ser Arg Lys Leu Ser Met Ser Ser Lys Val Asp	
1960 1965 1970	
ata aaa gca ctc agt caa tct gca att ctc att act gaa aag tta	6542
Ile Lys Ala Leu Ser Gln Ser Ala Ile Leu Ile Thr Glu Lys Leu	
1975 1980 1985	
atc aat ttg tgc aat aca agg att aac agt aaa tct gta aaa atg	6587
Ile Asn Leu Cys Asn Thr Arg Ile Asn Ser Lys Ser Val Lys Met	
1990 1995 2000	
agc tta aag gat cat ttt cgg ctt tct ttt gat gat ccg gta gat	6632
Ser Leu Lys Asp His Phe Arg Leu Ser Phe Asp Asp Pro Val Asp	
2005 2010 2015	
tta gtc att cct gct aaa tca ttt tta gac att act tta cca gct	6677
Leu Val Ile Pro Ala Lys Ser Phe Leu Asp Ile Thr Leu Pro Ala	
2020 2025 2030	

aaa gat gct aac	aga gct agt cat	tat cca ttt cca	aaa act cag	6722
Lys Asp Ala Asn	Arg Ala Ser His	Tyr Pro Phe Pro	Lys Thr Gln	
2035		2040	2045	
cct act ctg ttg	aaa ttt gag gat	gag gtg gat ata	atg aac tct	6767
Pro Thr Leu Leu	Lys Phe Glu Asp	Glu Val Asp Ile	Met Asn Ser	
2050		2055	2060	
ctt caa aaa cca	aga aaa gtg tac	gtt aga ggt acg	gat ggc aac	6812
Leu Gln Lys Pro	Arg Lys Val Tyr	Val Arg Gly Thr	Asp Gly Asn	
2065		2070	2075	
tta tac cca ttc	ttg tgc aaa ccc	aaa gat gat ctt	cgt aag gat	6857
Leu Tyr Pro Phe	Leu Cys Lys Pro	Lys Asp Asp Leu	Arg Lys Asp	
2080		2085	2090	
gct aga ttg atg	gaa ttt aat aat	ctt att tgt aaa	ata ttg agg	6902
Ala Arg Leu Met	Glu Phe Asn Asn	Leu Ile Cys Lys	Ile Leu Arg	
2095		2100	2105	
aaa gat caa gaa	gcg aac aga agg	aac ttg tgt att	aga act tat	6947
Lys Asp Gln Glu	Ala Asn Arg Arg	Asn Leu Cys Ile	Arg Thr Tyr	
2110		2115	2120	
gtt gtt att cct	tta aat gaa gaa	tgc gga ttt atc	gaa tgg gta	6992
Val Val Ile Pro	Leu Asn Glu Glu	Cys Gly Phe Ile	Glu Trp Val	
2125		2130	2135	
aat cat act cgt	cca ttt aga gaa	att ttg tta aaa	agc tat aga	7037
Asn His Thr Arg	Pro Phe Arg Glu	Ile Leu Leu Lys	Ser Tyr Arg	
2140		2145	2150	
cag aaa aac att	ccc ata tca tat	caa gaa atc aaa	gtt gat tta	7082
Gln Lys Asn Ile	Pro Ile Ser Tyr	Gln Glu Ile Lys	Val Asp Leu	
2155		2160	2165	
gac ttt gca ctg	cga agt cct aac	cct ggt gat ata	ttt gaa aag	7127
Asp Phe Ala Leu	Arg Ser Pro Asn	Pro Gly Asp Ile	Phe Glu Lys	
2170		2175	2180	
aaa atc tta ccg	aaa ttt cct cca	gtt ttt tat gag	tgg ttt gtt	7172
Lys Ile Leu Pro	Lys Phe Pro Pro	Val Phe Tyr Glu	Trp Phe Val	
2185		2190	2195	
gaa tct ttc cca	gaa cca aat aat	tgg gtt act agt	aga caa aac	7217
Glu Ser Phe Pro	Glu Pro Asn Asn	Trp Val Thr Ser	Arg Gln Asn	
2200		2205	2210	
tat tgc cga act	tta gca gta atg	tca ata gtt ggc	tac gtt ttg	7262
Tyr Cys Arg Thr	Leu Ala Val Met	Ser Ile Val Gly	Tyr Val Leu	
2215		2220	2225	
ggt ttg gga gat	cgc cat ggc gaa	aac ata ttg ttt	gat gaa ttt	7307
Gly Leu Gly Asp	Arg His Gly Glu	Asn Ile Leu Phe	Asp Glu Phe	
2230		2235	2240	
aca ggt gaa gct	atc cat gtc gat	ttc aac tgt ctt	ttt gat aaa	7352
Thr Gly Glu Ala	Ile His Val Asp	Phe Asn Cys Leu	Phe Asp Lys	
2245		2250	2255	
ggt ctt act ttt	gaa aaa cct gaa	aag gtg ccg ttc	aga tta act	7397
Gly Leu Thr Phe	Glu Lys Pro Glu	Lys Val Pro Phe	Arg Leu Thr	
2260		2265	2270	
cat aat atg gta	gat gca atg ggt	ccg aca ggt tat	gaa ggg ggt	7442
His Asn Met Val	Asp Ala Met Gly	Pro Thr Gly Tyr	Glu Gly Gly	
2275		2280	2285	
ttc agg aaa gct	agc gaa ata acg	atg cgg ctt ctt	cgc tca aac	7487
Phe Arg Lys Ala	Ser Glu Ile Thr	Met Arg Leu Leu	Arg Ser Asn	
2290		2295	2300	
caa gat aca ttg	atg agc gta cta	gag tct ttc cta	cat gat cct	7532
Gln Asp Thr Leu	Met Ser Val Leu	Glu Ser Phe Leu	His Asp Pro	
2305		2310	2315	
tta gtc gag tgg	aat aga aag aag	tcg tca agc aag	tac ccg aat	7577
Leu Val Glu Trp	Asn Arg Lys Lys	Ser Ser Ser Lys	Tyr Pro Asn	
2320		2325	2330	
aat gaa gca aat	gaa gtt ttg gat	ata att cgc aaa	aaa ttt caa	7622
Asn Glu Ala Asn	Glu Val Leu Asp	Ile Ile Arg Lys	Lys Phe Gln	
2335		2340	2345	

ggc ttt atg cca ggg gag acg ata cct tta tct att gaa ggg caa	7667
Gly Phe Met Pro Gly Glu Thr Ile Pro Leu Ser Ile Glu Gly Gln	
2350 2355 2360	
att caa gaa ttg atc aaa tct gct gtc aac cca aaa aac ctg gta	7712
Ile Gln Glu Leu Ile Lys Ser Ala Val Asn Pro Lys Asn Leu Val	
2365 2370 2375	
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Glu Met Tyr Ile Gly Trp Ala Ala Tyr Phe	
2380 2385	
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Met Ser Gln His Ala Lys Arg Lys Ala Gly Ser Leu Asp Leu Ser Pro	
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Leu Ala Leu Asp Lys Glu His Glu Leu Gly Arg Ser Asn Ser Leu Pro	
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Ser Met Thr Ser Glu Leu Val Glu Val Leu Ile Glu Val Gly Leu Leu	
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Ala Phe Lys His Asp Asp Ser Lys Ser Glu Phe Ile Ser Pro Lys Met	
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Leu Lys Glu Ala His Leu Ser Leu Gln Ala Leu Met Leu Ile Leu Lys	
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Arg Ser Pro Thr Val Leu Arg Glu Ile Lys Ser Ser Val Thr Leu Leu	
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Asp Trp Ile Leu Pro Arg Thr Ile Ser Leu Phe Ala Asp Ile Arg Phe	
115 120 125	
Ile Lys Leu Phe Asp Ser Leu Lys Glu Phe His Lys Leu Ile Tyr Gln	
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Leu Ile Ser Glu Lys Ser Phe Leu Trp Asp Leu Tyr Ala Ser Phe Met	
145 150 155 160	
Arg Tyr Trp Lys Tyr Tyr Ile Thr Asn Val Ser Ser Ile Val Leu Gln	
165 170 175	
Ile Thr Asn Ala Thr Phe Pro Tyr Lys Met Pro Ser Pro Asn Ser Gln	
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Pro Leu Gln Ser Ile Ser Pro Asn Tyr Pro Thr His Arg Glu Asp Lys	
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Phe Asp Leu Leu Ile Ile Asn Ile Glu Glu Ala Cys Thr Phe Phe Phe	
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Glu Ser Ala His Phe Phe Ala Gln Cys Ser Tyr Leu Lys Lys Ser Asn	
225 230 235 240	
Phe Pro Ser Pro Pro Leu Phe Thr Ala Trp Thr Trp Ile Lys Pro Cys	
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Phe Phe Asn Phe Val Ile Leu Leu Lys Arg Ile Ser Ile Gly Asp Ser	
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Gln Leu Phe Leu His Leu His Ser Arg Ile Val Gln Thr Leu Cys Cys	
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Phe Ser Leu Asn Phe Ile Tyr His Gly Leu Pro Ile Cys Glu Lys Ser	
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Lys His Ile Leu Met Ser Ser Ile Asn Leu Thr Leu Gly Ser Leu Lys	
305 310 315 320	

Lys	Thr	Tyr	Thr	Val	Ala	Asn	Thr	Ala	Ile	Ser	Leu	Phe	Phe	Leu	Ser	325	330	335
Leu	Phe	Val	Leu	Pro	Lys	Thr	Val	Ala	Gly	Leu	Phe	Tyr	Pro	Phe	Gly	340	345	350
Val	Ser	Leu	Leu	Ser	Asp	Phe	Lys	Val	Leu	Glu	Gln	Leu	Glu	Pro	Asp	355	360	365
Ser	Asp	Leu	Lys	Lys	Ala	Ile	Ile	Leu	Phe	Lys	Cys	Arg	Tyr	Gln	Ser	370	375	380
Ser	Glu	Ile	Asp	Gln	Thr	Thr	Leu	Arg	Ala	Phe	Gly	Glu	Ile	Cys	Thr	385	390	395
Gly	Lys	Leu	Glu	Asn	Thr	Leu	Phe	Ser	Asn	Ser	Glu	Leu	Asn	Leu	Phe	405	410	415
Leu	Leu	His	Tyr	Leu	Ser	Leu	Asp	Asn	Asp	Leu	Ser	Asn	Ile	Leu	Lys	420	425	430
Val	Asp	Phe	Gln	Asn	Gly	His	Asn	Ile	Cys	Thr	Phe	Ala	Lys	Trp	Cys	435	440	445
Ile	Asn	Asn	Asn	Leu	Asp	Glu	Pro	Ser	Asn	Leu	Lys	His	Phe	Arg	Glu	450	455	460
Met	Leu	Asp	Tyr	Tyr	Ser	Ser	His	Asn	Val	Thr	Ile	Ser	Glu	Asp	Asp	465	470	475
Leu	Lys	Asn	Phe	Ser	Leu	Val	Leu	Cys	Thr	His	Val	Ala	Lys	Val	Asn	485	490	495
Glu	Lys	Thr	Asn	Ser	Ile	Phe	Arg	Thr	Tyr	Glu	Val	His	Gly	Cys	Glu	500	505	510
Val	Cys	Asn	Ser	Phe	Cys	Leu	Leu	Phe	Asp	Glu	Arg	Ser	Pro	Phe	Lys	515	520	525
Ile	Pro	Tyr	His	Glu	Leu	Phe	Cys	Ala	Leu	Leu	Lys	Asn	Pro	Asp	Ile	530	535	540
Ile	Ser	Ser	Ser	Val	Lys	Gln	Ser	Leu	Leu	Leu	Asp	Gly	Phe	Phe	Arg	545	550	555
Trp	Ser	Gln	His	Cys	Ser	Asn	Phe	Asn	Lys	Glu	Ser	Met	Leu	Ser	Leu	565	570	575
Arg	Glu	Phe	Ile	Met	Lys	Ala	Leu	Ala	Ser	Thr	Ser	Arg	Cys	Leu	Arg	580	585	590
Val	Val	Ala	Ala	Lys	Val	Leu	Pro	Ile	Phe	Ile	Lys	Gly	Pro	Asn	Asn	595	600	605
Leu	Asp	Ile	Val	Glu	Phe	His	Lys	Glu	Ser	Lys	Ala	Leu	Ile	Phe	Asn	610	615	620
Thr	Leu	Lys	Ile	Leu	Ala	Val	Glu	Asn	Thr	Ala	Ile	Leu	Glu	Thr	Val	625	630	635
Ile	Leu	Ser	Trp	Ile	Ser	Leu	Ser	Arg	Val	Val	Glu	Glu	Glu	Glu	Leu	645	650	655
His	Phe	Val	Leu	Glu	Val	Ile	Ser	Ser	Val	Ile	Asn	Ser	Gly	Ile		660	665	670
Phe	Tyr	Gln	Gly	Ile	Gly	Leu	Ser	Ala	Leu	Gln	Gln	Ile	Ala	Ser	Thr	675	680	685
Arg	His	Ile	Ser	Val	Trp	Gln	Leu	Leu	Ser	Pro	Tyr	Trp	Pro	Thr	Val	690	695	700
Ser	Val	Ala	Ile	Val	Gln	Gly	Met	Gly	Lys	Lys	Pro	Asn	Ile	Ala	Ser	705	710	715
Leu	Phe	Ala	Gln	Leu	Met	Asn	Ile	Ser	Glu	Gly	Asp	Phe	Leu	Ile	Arg	725	730	735
Thr	Gln	Ala	Tyr	Thr	Leu	Pro	Phe	Leu	Val	Leu	Thr	Lys	Asn	Lys	Ala	740	745	750
Leu	Ile	Val	Arg	Ile	Ala	Glu	Leu	Ser	Gln	Ser	Asp	Val	Ala	Thr	Leu	755	760	765
Cys	Leu	Thr	Asn	Met	His	Lys	Ile	Leu	Ala	Ser	Leu	Leu	Thr	Thr	Asp	770	775	780
His	Pro	Asn	Leu	Glu	Glu	Ser	Val	Met	Leu	Leu	Ser	Leu	Ala	Thr		785	790	795
Ser	Asp	Phe	Glu	Lys	Val	Asp	Leu	Thr	Ser	Leu	Leu	Arg	Ser	Asp	Pro	805	810	815

Ile	Ser	Ile	Thr	Val	Glu	Leu	Leu	Gln	Leu	Tyr	Gln	Asn	Asp	Val	Pro
			820					825					830		
His	Glu	Lys	Ile	Glu	Asn	Ala	Leu	Arg	Lys	Val	Ala	Met	Ile	Val	Ser
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Gln	Val	Val	Asn	Asp	Glu	Asp	Leu	Ser	Asn	Lys	Glu	Leu	Leu	Tyr	Asp
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Phe	Phe	Asn	Asn	His	Ile	Leu	Gly	Ile	Leu	Ala	Glu	Phe	Ser	Asn	Ile
865					870				875						880
Leu	Asn	Asp	Leu	Lys	Gly	Lys	Thr	Ser	Ile	Asn	Glu	Lys	Ile	Lys	Thr
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Ile	Val	Gly	Ile	Glu	Lys	Met	Leu	Ser	Leu	Cys	Gly	Gly	Ala	Val	Lys
		900						905					910		
Leu	Gly	Leu	Pro	Gln	Ile	Leu	Ser	Asn	Leu	Gln	Ser	Ala	Phe	Gln	Asn
		915					920					925			
Glu	His	Leu	Arg	Phe	Tyr	Ala	Ile	Lys	Ala	Trp	Phe	Ser	Leu	Ile	Leu
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945					950				955						960
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Val	Ile	Gln	Ile	Phe	Asp	Phe	Ile	Ser	Ser	Asp	Thr	His	Lys	Cys	Leu
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Gln	Gly	Leu	Lys	Trp	Ala	Ile	Pro	Thr	Ser	Leu	Asp	Ser	Ala	Cys	Phe
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Ser	Leu	Lys	Ala	Lys	Glu	Ile	Phe	Cys	Ser	Leu	Gln	Asn	Glu	Asp	
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Phe	Tyr	Ser	Glu	Leu	Gln	Ser	Ile	Ile	Lys	Cys	Leu	Thr	Asn	Glu	
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Phe	Gln	Ala	Lys	Val	Asp	Glu	Leu	His	Asp	Thr	Leu	Asn	Leu	Asp	
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Ile	Ser	Asn	Glu	Val	Leu	Asp	Gln	Leu	Leu	Arg	Cys	Leu	Leu	Asp	
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Cys	Cys	Val	Lys	Tyr	Ala	Ser	Thr	Asn	Met	Gln	Ile	Ser	Tyr	Leu	
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Ala	Ala	Lys	Asn	Leu	Gly	Glu	Leu	Gly	Ala	Ile	Asp	Pro	Ser	Arg	
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Ala	Lys	Ala	Gln	His	Ile	Ile	Lys	Glu	Thr	Val	Val	Leu	Asp	Asn	
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Phe	Glu	Asn	Gly	Glu	Glu	Ser	Leu	Lys	Phe	Ile	Leu	Asp	Phe	Met	
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Gln	Ser	Gln	Leu	Ile	Pro	Ala	Phe	Leu	Val	Thr	Thr	Asp	Thr	Lys	
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Ala	Gln	Gly	Phe	Leu	Ala	Tyr	Ala	Leu	Gln	Glu	Phe	Leu	Lys	Leu	
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Gly	Gly	Phe	Lys	Ser	Ala	Val	Ile	Asn	Lys	Lys	Lys	Gly	Leu	Thr	
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Val	Val	Thr	Glu	His	Trp	Met	Ser	Leu	Pro	Asp	Leu	Ser	Lys	Arg	
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Val	Leu	Ile	Pro	Phe	Leu	Thr	Ser	Lys	Tyr	His	Leu	Thr	Pro	Ile	
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Pro	Lys	Ile	Asp	Ile	Arg	Tyr	Pro	Ile	Tyr	Lys	Glu	Asn	Val	Thr	
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Ile	His	Thr	Trp	Met	Gln	Leu	Phe	Ser	Leu	Lys	Leu	Met	Glu	Tyr	
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Ala	His	Ser	Gln	Asn	Ala	Glu	Lys	Ile	Phe	Gly	Ile	Cys	Ser	Lys	
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Asn	Lys	Val	Ile	Glu	Glu	Phe	Gln	Leu	Val	Ile	Asn	Gln	Pro	Gly
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Pro	Tyr	Ala	Ala	Leu	Glu	Ser	Asp	Tyr	Arg	Val	Leu	Gln	Glu	Ile
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Tyr	Asp	Ile	Leu	Ser	Lys	Leu	His	Ala	Ile	Asn	Asp	Phe	Ser	Arg
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Ile	Ala	Glu	Thr	Asp	Gly	Ile	Val	Ser	Asp	Asn	Leu	Asp	Ile	Val
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Leu	Arg	Arg	Arg	Leu	Ser	Gln	Val	Ala	Pro	Tyr	Gly	Lys	Phe	Lys
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Ser	Arg	Lys	Asn	Gly	Gln	Phe	Gln	Arg	Ala	Phe	Asn	Ala	Ile	Leu
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1775						1780					1785			
Gly	His	His	Arg	Val	Leu	Met	Tyr	Glu	Glu	Glu	Gln	Lys	Leu	Pro
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Arg	Ile	Ile	Asn	Glu	Phe	Gly	Arg	Ser	Leu	Tyr	Tyr	Gly	Thr	Asn
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His	Ile	Tyr	Glu	Ser	Met	Pro	Lys	Leu	Leu	Thr	Leu	Trp	Leu	Asp
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Phe	Gly	Ala	Glu	Glu	Leu	Arg	Leu	Ser	Lys	Asp	Asp	Gly	Glu	Lys
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Tyr	Phe	Arg	Glu	His	Ile	Ile	Ser	Ser	Arg	Lys	Lys	Ser	Leu	Glu
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Leu	Met	Asn	Ser	Asn	Val	Cys	Arg	Leu	Ser	Met	Lys	Ile	Pro	Gln
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Tyr	Phe	Phe	Leu	Val	Ala	Leu	Ser	Gln	Met	Ile	Ser	Arg	Val	Cys
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His	Pro	Asn	Asn	Lys	Val	Tyr	Lys	Ile	Leu	Glu	His	Ile	Ile	Ala
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Val	Lys	Met	Ser	Leu	Lys	Asp	His	Phe	Arg	Leu	Ser	Phe	Asp	Asp
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Pro	Val	Asp	Leu	Val	Ile	Pro	Ala	Lys	Ser	Phe	Leu	Asp	Ile	Thr
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Ile	Leu	Arg	Lys	Asp	Gln	Glu	Ala	Asn	Arg	Arg	Asn	Leu	Cys	Ile
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Glu	Trp	Val	Asn	His	Thr	Arg	Pro	Phe	Arg	Glu	Ile	Leu	Leu	Lys
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Ser	Tyr	Arg	Gln	Lys	Asn	Ile	Pro	Ile	Ser	Tyr	Gln	Glu	Ile	Lys
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Val	Asp	Leu	Asp	Phe	Ala	Leu	Arg	Ser	Pro	Asn	Pro	Gly	Asp	Ile
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Asp	Glu	Phe	Thr	Gly	Glu	Ala	Ile	His	Val	Asp	Phe	Asn	Cys	Leu
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Lys	Phe	Gln	Gly	Phe	Met	Pro	Gly	Glu	Thr	Ile	Pro	Leu	Ser	Ile
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tggatgatga cagctgtgtc

20

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tggtttctga gaacattccc tga

23

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<223> Xaa = Isoleucine or Valine

<220>
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 <222> (6)..(6)
 <223> Xaa = Leucine or Phenylalanine

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 <222> (8)..(8)
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Lys Phe Pro Pro Xaa Xaa Tyr Xaa Trp Phe
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Leu Gly Leu Gly Asp Arg His
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<220>
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His Val Asp Phe Xaa Cys
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